

IN THE CLAIMS

1. (Currently Amended) A process for preparing rigid urethane-modified polyisocyanurate foam comprising the step of reacting an organic polyisocyanate with a polyfunctional isocyanate-reactive component comprising at least 30 wt % of polyester polyols in the presence of a blowing agent, selected from the group consisting of alkanes, alkenes, and cycloalkanes, each having from 4 to 8 carbon atoms a hydrocarbon free of halogen atoms or a mixture of water and a hydrocarbon free of halogen atoms, a urethane catalyst, and a metal salt trimerisation catalyst characterized in that the process is carried out in the presence of a carboxylic acid, wherein the urethane catalyst is used in an amount ranging from 0.1 to 3.5 % by weight based on the isocyanate-reactive component and the metal salt trimerisation catalyst is used in an amount ranging from 0.4 to 4.5 % by weight based on the isocyanate-reactive component.
2. (Original) The process according to claim 1 wherein the carboxylic acid has a molecular weight below 250.
3. (Original) The process according to claim 1 wherein the carboxylic acid has a pKa value in water of between 1 and 5.5.
4. (Original) The process according to claim 2 wherein the carboxylic acid has a pKa value in water of between 1 and 5.5.
5. (Previously Presented) The process according to claim 1 wherein the carboxylic acid is functionalised with at least one SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.
6. (Previously Presented) The process according to claim 2 wherein the carboxylic acid is functionalised with at least one SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.

7. (Currently Amended) The process according to claim 3 wherein the carboxylic acid is functionalised with at least one SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group 1 wherein the process is a process for preparing rigid polyisocyanurate foam panels of varying thickness, said process further including adjusting the trimerization catalyst and carboxylic acid content for each foam panel thickness such that the same degree of isocyanurate conversion is achieved in thicker panels as is found in thinner panels.

8. (Currently Amended) The process according to claim 4 wherein the carboxylic acid is functionalised with at least one SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group 7 including measuring the degree of isocyanurate conversion by measuring the reaction of a panel of each thickness to fire by the B2 flame spread test according to standard DIN 4102.

9. (Original) The process according to claim 5 wherein the carboxylic acid is functionalised in α or β position with respect to the carboxyl group.

10. (Original) The process according to claim 6 wherein the carboxylic acid is functionalised in α or β position with respect to the carboxyl group.

11. (Previously Presented) The process according to claim 9 wherein said functionalised carboxylic acid corresponds to the general formula X_n - R' - COOH wherein X is SH, NH₂, NHR, NO₂ or halogen, R' is an at least divalent hydrocarbon moiety, n is an integer having a value of at least 1 and allows for mono and polyfunctional substitution on the hydrocarbon moiety.

12. (Previously Presented) The process according to claim 10 wherein said functionalised carboxylic acid corresponds to the general formula X_n - R' - COOH wherein X

is SH, NH₂, NHR, NO₂ or halogen, R' is an at least divalent hydrocarbon moiety, n is an integer having a value of at least 1 and allows for mono and polyfunctional substitution on the hydrocarbon moiety.

Claims 13- 17 (Cancelled)

18. (Original) The process according to claim 1 wherein said carboxylic acid is used in an amount ranging from 0.05 to 5 % by weight based on the isocyanate-reactive component.

19. (Original) The process according to claim 2 wherein said carboxylic acid is used in an amount ranging from 0.05 to 5 % by weight based on the isocyanate-reactive component.

Claims 20-21 (Cancelled)

22. (Previously Presented) The process according to claim 1 wherein the metal salt trimerisation catalyst is an alkali metal salt of an organic carboxylic acid.

23. (Previously Presented) The process according to claim 2 wherein the metal salt trimerisation catalyst is an alkali metal salt of an organic carboxylic acid.

24. (Original) The process according to claim 23 wherein the metal salt trimerisation catalyst is potassium acetate or potassium 2-ethylhexanoate.

25. (Cancelled)

26. (Original) The process according to claim 1 wherein the reaction is carried out at an isocyanate index of 150 to 450 %.

27. (Cancelled)

28. (Currently Amended) A rigid urethane-modified polyisocyanurate foam obtained by reacting an organic polyisocyanate with a polyfunctional isocyanate-reactive component comprising at least 30 wt % of polyester polyols in the presence of a blowing agent, selected from the group consisting of alkanes, alkenes, and cycloalkanes, each having from 4 to 8 carbon atoms ~~a hydrocarbon free of halogen atoms or a mixture of water and a hydrocarbon free of halogen atoms~~, a urethane catalyst, and a metal salt trimerisation catalyst characterized in that the process is carried out in the presence of a carboxylic acid wherein the urethane catalyst is used in an amount ranging from 0.1 to 3.5 % by weight based on the isocyanate-reactive component and the metal salt trimerisation catalyst is used in an amount ranging from 0.4 to 4.5 % by weight based on the isocyanate-reactive component.

29. (Cancelled)

30. (Previously Presented) A process for preparing rigid urethane-modified polyisocyanurate foam comprising the step of reacting an organic polyisocyanate with a polyfunctional isocyanate-reactive component comprising at least 30 wt % of polyester polyols in the presence of a blowing agent and a metal salt trimerisation catalyst characterized in that the process is carried out in the presence of a functionalised carboxylic acid having at least one SH, NH₂, NHR, NO₂, or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group and the metal salt trimerisation catalyst is used in an amount ranging from 0.5 to 5 % by weight based on the isocyanate-reactive component.

31. (Previously Presented) The process according to claim 30 wherein the water is present in an amount less than 1 % by weight based on the isocyanate-reactive component.

32. (Cancelled)

33. (Currently Amended) The process according to claim [[32]] 1, wherein the ~~hydrocarbon free of halogen atoms are~~ blowing agent is selected from the group of n-butane, iso-butane, 2,3-dimethylbutane, cyclobutane, n-pentane, iso-pentane, technical grade pentane mixtures, cyclopentane, methylcyclopentane, neopentane, n-hexane, iso-hexane, n-heptane, iso-heptane, cyclohexane, methylcyclohexane, 1-pentene, 2-methylbutene, 3-methylbutene, 1-hexene, and mixtures thereof.

34. (Previously Presented) The process according to claim 28, wherein the carboxylic acid is functionalised with at least one SH, NH₂, NHR, NO₂, or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.

35. (Previously Presented) The process according to claim 34 wherein the carboxylic acid is functionalised in α or β position with respect to the carboxyl group.

36. (Previously Presented) The process according to claim 34 wherein the carboxylic acid corresponds to the general formula X_n – R'- COOH wherein X is SH, NH₂, NHR, NO₂ or halogen, R' is an at least divalent hydrocarbon moiety, n is an integer having a value of at least 1 and allows for mono and polyfunctional substitution on the hydrocarbon moiety.